

**Bay Area Air Quality Management District
939 Ellis Street
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**Proposed Amendments To
BAAQMD Regulation 5: Open Burning**

Draft Staff Report

February 2002

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STAFF REPORT

PROPOSED AMENDMENTS TO BAAQMD REGULATION 5: OPEN BURNING

EXECUTIVE SUMMARY

Regulation 5 regulates open burning in the Bay Area. The regulation is the successor to Regulation 1, which was the first regulation ever adopted by the BAAQMD. Regulation 1 was adopted in 1957 primarily to regulate open burning of trash, a common practice at the time. The regulation was subsequently amended several times and, in 1980, was recodified as Regulation 5. The proposed amendments to District Regulation 5 would add new requirements that primarily affect prescribed burning activities in the Bay Area. Prescribed burning is controlled burning to achieve planned natural resource objectives. Many public and private land managers responsible for undeveloped Bay Area open space have now adopted prescribed burning as one of the most appropriate means to manage the ecosystems found on that land. Prescribed burning is a substitute for the seasonal fires that typically affected this land before the modern era. However, because much of the area that surrounds undeveloped land is now heavily populated, the smoke from increased prescribed burning must be carefully regulated in order to protect public health and air quality. Because of the increased reliance on prescribed burning as a land management tool throughout the State, the California Air Resources Board (ARB) updated its smoke management guidelines on March 23, 2000. These guidelines are now called the "Smoke Management Guidelines for Agricultural and Prescribed Burning," though agricultural burning is defined to cover a much broader range of open burning. These amendments to Regulation 5 are necessary to implement a new smoke management program for prescribed burning in the Bay Area. The proposed amendments follow much of what is included in the ARB Guidelines for prescribed burning.

Open burning in the Bay Area includes burning of marshland to manage the acreage for wildlife habitat. A number of these burns, called Marsh Management fires in the proposed amendments, are conducted yearly in the District, primarily in southern Solano and Napa Counties. The proposed amendments would, effective June 1, 2002, require persons conducting these burns to: (1) submit a smoke management plan at least 30 days prior to a proposed burn; (2) submit a written statement of the necessity of each burn from the California Department of Fish & Game (DFG) to the APCO prior to burning; and (3) in securing the written necessity statement, submit to DFG and the APCO information from their land management plans to assist DFG in determining whether a burn is "desirable and proper" as it is required to do by the Health and Safety Code Section 41861; and (4) for each day on which burning occurs, report the acreage and tonnage actually burned to the APCO no later than 12:00 p.m. the subsequent day. In addition, the burner must obtain approval of the smoke management plan and receive an acreage burning allocation from the APCO prior to burning.

Other proposed amendments would: (1) modify the compliance standards to include certain existing requirements found in other provisions of the regulation; (2) restrict and clarify existing burn hours for all allowable fires; (3) require piled material, such as tree stumps, to be managed before burning to prevent overnight smoldering; and (4) with conditions, allow fire training burns at night and public exhibition burns on no-burn days. These amendments would improve the clarity and enforceability of Regulation 5, and address open burning issues identified since 1994 when the regulation was last revised. These measures are also intended to minimize the potential adverse smoke impacts from open burning allowed in the District and reduce variance costs.

The proposed amendments will improve management of smoke and reduce population exposure to emissions of particulate matter (including PM₁₀ and PM_{2.5}), carbon monoxide, and volatile organic compounds (VOC's). However, because the proposed amendments do not restrict the total acreage or allowable types of material to be burned and because increases in the amount of prescribed burning are projected, no overall emissions reduction is expected from the proposed amendments. The amendments are expected to provide improved burn acreage data, which should improve the District's ability to estimate emissions and quantify any reductions.

Pursuant to the California Environmental Quality Act (CEQA), the District prepared an initial study to determine the potential environmental impacts of the proposed amendments to Regulation 5. This project is a revision to an earlier proposal that also included amendments to Regulation 3. The Regulation 3 amendments, which would have imposed fees for certain burning activities, have been dropped from the project. District staff has revised an initial study prepared for the earlier proposal and has concluded that the proposed amendments to Regulation 5 would not have significant environmental impacts. A CEQA negative declaration is proposed by staff for adoption by the District's Board of Directors (Board) in connection with these amendments.

Implementation of the proposed amendments will have a significant impact on the District's resources. However, these changes are essential and necessary in order to implement the prescribed burning provisions of the ARB Guidelines and the District's new smoke management program for prescribed burning. For the current fiscal year (FY01-02), the budgeted cost of this program is approximately \$582,000/year and is based on funding 5.5 full-time positions.

District staff conducted two scoping workshops in February and March, 2000 to discuss an initial draft of the open burning fee proposal. The proposed amendments to Regulation 5 and proposed Schedule R in Regulation 3 were discussed during two additional workshops held on August 9, 2001 in Fairfield, CA and August 10, 2001 at the District office. The primary issue raised during the workshops was the cost impacts of the fee proposal in Regulation 3.

On November 7, 2001, a public hearing was conducted to simultaneously consider the proposed amendments to Regulation 3 and Regulation 5. In response to testimony heard

during the hearing, the Board continued the proposed amendments to December 19, 2001.

On December 19, 2001, two separate public hearings were conducted for the proposed amendments. In the first hearing, the Board concurred with staff's recommendation to defer action on the fee proposal for one year to quantify actual program costs. After hearing testimony, the Board continued the second hearing on Regulation 5 to a future date.

BACKGROUND

Current BAAQMD Requirements

The District first regulated open burning in 1957 under Regulation 1 because of its considerable contribution to Bay Area air pollution. In 1980, after several revisions and as the number of other District regulations increased, Regulation 1 was recodified as Regulation 5. The last revisions to Regulation 5 were adopted in 1994.

Currently, Regulation 5 generally prohibits open burning within the District except for specific exceptions that conditionally allow fires on permissive burn days at certain times of the year. The exceptions or allowable fire types include both agricultural and non-agricultural fires.

For each day of the year, the District issues either a permissive burn day or no-burn day notice. District staff in the Meteorology and Data Analysis Section of the Technical Services Division makes this determination based on the meteorological conditions forecasted and criteria for the San Francisco Bay Area Air Basin. The criteria are based on the ability of smoke from open burning to rise and dissipate without causing ground level impacts. The burn day forecast is usually available by 3:00 p.m. for the following day. However, if conditions are warranted for a delayed burn decision, the forecast is made by 7:30 a.m. the following day. A permissive burn or no-burn day notice is issued for three forecast zones in the District, the North, South and Coastal Sections. In addition, for burns above elevations of 2000 feet in a section with a no-burn decision, a permissive burn day will be declared if specific meteorological criteria are met.

State Regulation

Assembly Bill (AB) 16 (Ketchum), Chapter 1579 of the Statutes of 1970, directed the California Air Resource Board (ARB) to establish guidelines for the control and regulation of agricultural burning by the air districts in California (see California Health & Safety Code Sections 41850 *et seq.*). Originally, agricultural burning was defined as open outdoor fires used in agricultural operation in the growing of crops or the raising of fowl or animals. In 1971, pursuant to AB16, the ARB established Agricultural Burning Guidelines for the burning of waste produced during agricultural operations (these Agricultural Guidelines can be found in sections 80100 *et seq.* of Title 17 of the

California Code of Regulations). The Agricultural Burning Guidelines have been modified many times since 1971. Major changes include amending the definition of agricultural burning to include open burning for the improvement of wildlife and game habitat and again for wildland vegetation management. The Agricultural Burning Guidelines were also amended to improve the quality of data reported by air districts and to improve the management of smoke from rice straw burning in the Sacramento Valley (the Sacramento Valley Basinwide Agricultural Burning Plan).

State law prohibits agricultural burning without a permit issued by agency designated by the ARB to issue permits for the area in which the burning is to take place.

On March 23, 2000, ARB adopted amendments to the State's Agricultural Burning Guidelines. The new Guidelines, which are now titled "Smoke Management Guidelines for Agricultural and Prescribed Burning," were developed by ARB staff to improve California's smoke management program for several reasons:

- Increases of prescribed burning are planned by land management agencies on public and private lands throughout California over the next two decades. Though significant increases may occur in many areas in California, only minor increases above current levels are expected in the Bay Area. The planned increases are intended to correct unhealthy wildland ecosystems and reduce the risk of catastrophic wildfires in areas with excessive vegetative fuel loads, which are the unintentional result of past fire suppression policies and strategies. More effective smoke management is needed to minimize or prevent the potential public health and air quality impacts posed by these increases.
- Smoke emissions from wildfires and increased prescribed burning threaten California's ability to meet requirements for health-based air quality standards for fine particulate matter (PM_{2.5}), coarser particles (PM₁₀) and new federal regional haze requirements that call for improvements in visibility in designated Class 1 Areas (national parks, monuments, wilderness areas, etc.).
- Closer communication and collaboration between prescribed burners, ARB and local air districts is needed to prevent short-term, high-impact smoke episodes caused by prescribed burning activities.
- Population growth and increased urbanization of rural areas and agricultural lands have increased the potential for smoke impacts from prescribed burning and agricultural burning. Combined with the expected increases in prescribed burning on neighboring public lands and in urban-wildland interface areas, more intensive management of these fires is needed to reduce the potential for smoke impacts.

The effective date of the amended Guidelines is March 14, 2001. One of the major changes requires local air districts to develop and implement a smoke management program that meets specific requirements of the Guidelines. This new program is also expected to be consistent with federal EPA's *Interim Air Quality Policy on Wildlands*

and Prescribed Fire. The policy is designed to prevent or minimize smoke impacts from prescribed burning activities, and help the State meet federal requirements associated with EPA's national air quality standards for particulate matter and regional haze program, while at the same improving the quality of wildland ecosystems through the use of prescribed burning.

These Amendments

The District is exempt from the agricultural burning provisions of the state smoke management guidelines because the legislation governing the state guidelines grandfathered existing open burning programs through California Health and Safety Code section 41864. That section grandfathers any program, such as the BAAQMD program, "in effect for five or more years prior to September 19, 1970." The ARB has maintained that this exemption does not extend to prescribed burning. Regardless whether the ARB legal position is correct, the District has committed to implementing various prescribed burning provisions of the new Guidelines to ensure statewide consistency, to ensure consistency with federal requirements and policy, to address within the Bay Area the same concerns that prompted revision of the state guidelines, and to address compliance and enforcement issues identified since 1994 when Regulation 5 was last amended.

The proposed Regulation 5 amendments include revisions that are an essential component of the District's new smoke management program for prescribed burning, including marsh burning. The intent of these revisions is to incorporate the prescribed burning provisions of the amended Guidelines necessary to ensure successful implementation of this new District program. In addition, several amendments are proposed to address open burning issues identified since 1994 when Regulation 5 was previously amended. Other proposed amendments to Regulation 5 would improve the enforceability of the Regulation by clarifying existing and eliminating obsolete regulatory language.

PROCESS DESCRIPTION

Open burning generally refers to the combustion of a substance or fuel outdoors in the ambient air. Under conditions when the combustion process is incomplete, smoke is produced as an undesirable by-product of the burning event. The amount of smoke produced in open fires varies as the fuel goes through the four phases of burning described below.

Pre-ignition Phase. In this phase, the fuel is heated and any water vapor moves to the surface and escapes. Pyrolysis (chemical decomposition) begins as the fuel dries and its internal temperature rises, releasing a stream of unburned combustible organic gases. Moderate smoke is produced when water vapor and unburned organic gases condense.

Flaming Phase. In this phase, the fuel temperature rises rapidly and pyrolysis accelerates to a point where combustion occurs. Combustion is the result of a chemical process called oxidation where hot unburned organic gases rapidly react with available atmospheric oxygen, producing light (as flames), heat, carbon dioxide, and water vapor. Temperatures in this phase range from 600 to 2500°F. Some smoke is also produced as some of the pyrolyzed substances cool and condense without passing through the flame zone or from being partially oxidized in the flaming zone. However, more smoke is produced as the efficiency of combustion decreases.

Smoldering Phase. In the smoldering fire phase, the reaction rate of the fire has slowed such that the concentration of gases above the fuel is too low to sustain a flame. Consequently, the temperature drops and the evolving unburned organic gases condense into tar droplets that appear as smoke. In this phase, smoke emissions are twice those of the flaming phase and most of the smoke consists of PM₁₀ emissions.

Glowing Phase. In this final phase, all of the flammable organic gases have been driven off and more oxygen in the air can reach the fuel surface. The fuel, now a solid black charcoal, begins to burn with a characteristic yellow glow and no visible smoke. Carbon monoxide is the principal pollutant emitted until the temperature drops or until only noncombustible gray ash remains.

In essence, the conditions that determine complete combustion during open burning include the combustion temperature, the residence time of the reactants at the combustion temperature, and the amount of oxygen available. Less smoke is produced when a higher temperature is achieved and maintained. Significant factors affecting the combustion temperature are the fuel moisture content and the nature of the fuel.

Smoke is, therefore, a complex mixture of two types of air pollutants: particulate matter and gases. Particulate matter emitted during open burning consists of solid or liquid microscopic particles of widely ranging size. The particles produced by incomplete combustion include soot or unburned carbon, ash (which results from burning unburnable minerals in the fuel), and a variety of condensed organic vapors. Most smoke particles (>90%) are very small, with an aerodynamic diameter less than 10 microns (10^{-6} meter). Known as PM₁₀, these particles are a cause for concern because they are small enough to be inhaled and can remain airborne for long periods of time affecting human health and visibility. PM₁₀ includes a fraction of fine particles with a diameter less than 2.5 microns called PM_{2.5}. These smaller particles can cause more significant health effects because they can be inhaled more deeply into the lungs.

Some PM₁₀ particles in smoke are formed from the gaseous products of combustion as a result of condensation, absorption and other chemical processes. These particles include some nitrates and sulfates, and complex organic compounds that contain known or suspected human carcinogens.

The primary gaseous or vapor-phase pollutants produced by incomplete combustion during open burning include carbon monoxide, sulfur dioxide, nitrogen dioxide, and

numerous organic compounds. Some of the organic vapors released are precursors to the formation of ozone, the main constituent of ground level smog.

Wildland Vegetation Management Fires

Prescribed burning is the controlled application of fire to wildland fuels that allow the fire to be confined to a predetermined area and achieve planned natural resource objectives. As a land treatment option, its use reduces the hazards of and potential for destructive wildfires, controls insects and disease, improves wildlife habitat and forage production, increases water yield, maintains natural succession of plant communities, and reduces the need for pesticides and herbicides in certain applications. A written burn plan includes a prescription that describes both the acceptable range of weather, moisture, fuel, and fire behavior parameters, and the ignition method to achieve the desired effects. All Wildland Vegetation Management fires are conducted as prescribed burns.

In the Bay Area, prescribed burning occurs in every county within the District's boundaries except for the city and county of San Francisco. Over the last three years, the majority of prescribed burns occurred in Marin and Contra Costa counties, followed by Santa Clara, Alameda, San Mateo, Napa, Sonoma and Solano counties. These fires were primarily conducted on public lands during the summer months from June through September, although several burns in Marin County also occurred during April, October, November and December.

The primary fire agencies or land management agencies that conduct prescribed burning in the District include the California Department of Forestry & Fire Protection (CDF), California Department of Parks & Recreation, Marin County Fire Department, U.S. Fish & Wildlife Service, and the National Park Service. Other notable burners that are allowed to conduct prescribed burns through a cooperative agreement or contract involving a state or federal agency include the East Bay Regional Park District (EBRPD) and the Marin Municipal Water District (MMWD).

Table 1 below shows how prescribed burning activities in 2000 compared with prior years.

Table 1. Prescribed Burning Summary (1997-2000)

Year	# Plans Approved	Acres Authorized	Acres Burned
2000	23	6950	829
1999	30	8616	1130
1998	25	3467	949
1997	21	1681	674

In 2000, the District approved 23 prescribed burn plans authorizing the burning of 6,950 acres, and 830 acres were ultimately burned that year. Table 2 below sets forth data for these burns. Many of the approved burn plans were never carried out.

Table 2. Prescribed Burning Activities – calendar year 2000

Agency	Burn Name	StartDate	EndDate	Burn Dates	Acres OK'd	Acres Burned
CDF/Napa County Fire	Pickett	1/1/00 12/15/00	1/31/00 12/31/00	N/a	2087	None
CDF	Mt. Mocho	1/1/00 7/15/00	4/1/00 12/31/00	N/a	1200	None
CDF/CA Parks & Recreation	Kelly Cabin	10/15/00	12/31/00	N/a	700	None
Marin County Fire/CDF	Lakeside (RX-1-044-MRN)	8/15/00	12/15/00	N/a	342	None
CDF I	Grant Ranch	6/15/00	11/15/00	N/a	200	None
Marin County Fire/CDF	Marinview Urban-Wildland Interface	10/1/00	12/30/00	N/a	6.2	None
Marin County Fire/CDF	Kent Woodlands I (RX-1-046-MRN)	10/1/00	12/30/00	12/7-12/9, 12/16, 12/17	31	7
City of Gilroy/CDF	Uvas Creek	6/15/00	7/31/00	7/11/00	1.5	1.5
U.S. Fish & Wildlife Service	Antioch Dunes	6/15/00	6/30/00	6/21/00	11	11
CDF	Russian Ridge	7/1/00 9/15/00	8/31/00 10/15/00	N/a	200	None
EBRPD/CDF	Briones	6/22/00	8/31/00	6/30, 7/3, 7/5, 7/6, 7/17, 7/19	670	496.43
EBRPD/CDF	Round Valley	6/15/00	8/31/00	6/22, 6/23, 6/26	50	31
EBRPD/CDF	Carquinez	6/22/00	8/31/00	7/21, 8/7, 8/11	190	180
MMWD/Marin County FD	Rock Spring	7/1/00	7/31/00	7/11/00	16	8
MMWD/Marin County FD	Peters Dam	7/10/00	8/15/00	7/20/00	8	8
CDF	Upper Gazos Creek	9/15/00	12/31/00	N/a	20	None

Agency	Burn Name	StartDate	EndDate	Burn Dates	Acres OK'd	Acres Burned
National Park Service	McDonald Omnibus	10/1/00	12/15/00	N/a	263	None
Marin County Fire/CDF	Taylor Trail/Fairfax Grade	9/13/00	10/31/00	10/16/00	58	26
EBRPD/CDF	Coyote Hills	10/5/00	11/15/00	10/5, 10/20	250	60
CDF	Kamchatka Point	10/1/00	10/31/00	N/a	1	None
CDF	Giacolone	12/1/00	12/31/00	N/a	265	None
CDF	Locarnini	12/1/00	12/31/00	N/a	300	None
CA Parks & Recreation	Portola Redwoods State Park	12/1/00	12/31/00	N/a	80	None
Totals					6,949.7	828.93

Prescribed burning acreage in the District is not explicitly allocated nor is there a standard that specifically limits burnable acreage for this fire type. However, District staff reviews each burn plan and limitations may be imposed as a condition of approval. As a result, burning acreage limits are already being used by District staff as a smoke management tool for prescribed burning.

Marsh or Tule Burning

Historically, marsh or tule burning in the Bay Area has been conducted to enhance wildlife and game habitat in the Sacramento-San Joaquin River estuary region of southwestern Solano County and southern Napa County. This region, also called the west "Delta", includes low-lying land areas and islands positioned in and around the waterway, and a variety of natural tidal marshes and man-made seasonal wetlands partitioned by levees or dikes. Characterized by very moist soils and unique plant communities, these marshlands provide critical habitat for a variety of birds, fish, invertebrates, reptiles, amphibians and mammals.

In the Delta, most marsh burning occurs within the boundaries of the Suisun Resource Conservation District (SRCD) by landowners, leaseholders or property caretakers. The burns are set on private farmlands or on lands managed as private, commercial hunting clubs, where members are permitted to shoot wildlife and waterfowl such as elk, duck and pheasant for a fee. The fee to lease a duck "blind" on a private club ranges from \$1,000 to \$1,600/year. California Department of Fish and Game (DFG) staff also conducts marsh burning to manage wildlife and game habitat on public lands that the State owns in the SRCD and Napa County. DFG also charges a fee to hunt on the public lands they manage.

Marsh burning acreage in the SRCD is currently allocated by the Solano County Sheriffs' dispatch in coordination with District staff and is subject to the current burn acreage limitations in Regulation 5, Section 401.13. Three local fire districts (Suisun, Montezuma, and Cordelia) and the DFG are also involved in authorizing these fires. Marsh burning acreage outside of the SRCD is not allocated but such burning is currently

limited to 100 acres/day for each property, on permissive burn days only, and with prior DFG authorization.

Marsh fires are often characterized by very heavy black smoke. The high fuel moisture and oil content inherent in marshland vegetation, especially tules, is thought to be the main factor affecting smoke generation. A primary objective of marsh burning is to set back the expansive and rapid growth of unwanted vegetation, especially tules. As a result of burning, the dominant tule community is changed in a way to encourage a succession of plant communities that supply essential habitat with food and cover for many different wildlife species.

In 2000, marsh burning was conducted on 930 acres during the spring burn period and on 580 acres during the fall burn period, for a total of 1510 acres. Table 3 above sets forth data from 1997-2000.

Table 3. Marsh Burning Summary (1997-2000)

Year	Acres Burned		
	Spring	Fall	Total
2000	930	580	1510
1999	1022	419	1441
1998	142	350	492
1997	895	502	1397

Recently, several land management agencies with jurisdiction over marshlands in the Bay Area have contacted District staff about conducting marsh burns outside of the west “Delta” region, such as the along the southeastern shoreline of San Francisco Bay, and along the Petaluma and Napa Rivers. Potential smoke impacts from this additional burning are a cause for concern because many of these areas are near or adjacent to densely populated areas. The District anticipates this interest in “non-traditional” marsh burning to increase because of an environmental campaign recently initiated by watershed groups and government entities to restore the ancient tidal marshes surrounding San Francisco Bay. Numerous wetland restoration projects are in the works and these efforts may include burning as a land management option and tool to achieve their restoration goals.

PROPOSED AMENDMENTS

This section provides a description of the proposed amendments to Regulation 5. The full text of the draft proposal can be found as Attachment 1 to this report.

Summary of Amendments

The table below summarizes the substantive amendments to Regulation 5. The table also notes parallel Title 17 provisions. More detailed explanations follow the summary.

Reg. 5 Section	Description of Section	Effect of Amendment	Parallel Title 17 Provision
110.3	Exemption for flame cultivation	Clarifies that the use of flame cultivation to kill live seedling grass and weeds is not limited to orchards vineyards and field crops	None
111	Conditional exemption that imposes restrictions on those fire types allowed by the regulation	Adds language to allow smoke management plan to supercede specific requirements of this section and its subsections	None
111.1	See above	Prohibits burns before 10:00 am except as superceded by plan	§80145(a), (o); §80160
111.2	See above	Clarifies that fuel addition or burning after two hours prior to sunset except as superceded by plan	§80145(a), (o); §80160
111.4	See above	Requires piled material to be managed to prevent smoldering at night except as superceded by plan	§80145(a), (o)
208	Definition of “hazardous material”	Clarifies language and eliminates language made unnecessary by sunseting of waste propellant burning under §401.14	N/a
213	Definition of “prescribed burning”	Expands definition of “prescribed burning” to include forest management, range management, hazardous material, and crop replacement fires above 10 acres in size	§80101(a)
221	Definition of “forest”	Defines “forest” for purpose of clarifying meaning of “forest management” fire in §401.12	N/a
222	Definition of “marshland”	Defines “marshland” for purpose of clarifying meaning of “marsh management” fire in §401.13	N/a
301	Prohibition against burning not conducted in conformity with Reg. or plan required by Reg.	Defines as a violation any burning in excess of a burn acreage allocation or that does not conform with a smoke management plan	§80145(a), §80160
401.2	Administrative requirements for crop replacement fires	Requires prior notification pursuant to §406 for this fire type	§80145(a), (g), (h)
401.3	Administrative requirements for orchard pruning and attrition fires	Allow shorter drying time than permitted by §111.4 so that pruning can be conducted later, thereby reducing likelihood of disease transmission; requires prior notification pursuant to §406 for this fire type	§80145(a), (g), (h), (o)
401.4	Administrative requirements for double cropping stubble fires	Requires prior notification pursuant to §406 for this fire type	§80145(a), (g), (h)
401.6	Administrative requirements for hazardous material fires	Prohibits burning of material that could be removed by vehicle; prohibits piled material burns before 9:30 am	§80145(a), (o)

Reg. 5 Section	Description of Section	Effect of Amendment	Parallel Title 17 Provision
401.7	Administrative requirements for fire training fires	With prior notice, allows these fires to be conducted outside burn hour limits of §111.1 and 111.2	None
401.8	Administrative requirements for flood debris fires	Requires prior notification pursuant to §406 for this fire type	§80145(a), (g), (h)
401.12	Administrative requirements for forest management fires	Requires prior notification pursuant to §406 for this fire type	§80145(a), (g), (h)
401.13	Administrative requirements for marsh management fires	Requires approval of smoke management plan required by §410 and compliance with acreage burning allocation; modifies existing acreage allocation system	§80145(a), (g), (h); §80160
401.16	Administrative requirements for wildland vegetation management fires	Effective June 1, 2002, prohibits fires on no-burn days	§80110(d)
401.17	Administrative requirements for public exhibition fires	Requires that APCO approval be secured through §409 petition process; allows these burns to be conducted on no-burn days	None
406	Prior District notification requirements for specified fire types	Adds crop replacement, orchard pruning and attrition, double cropping stubble, forest management, and flood debris fires to fire for which prior notification to the District is required; eliminates verbal notification	§80145(a), (g), (h)
408	Administrative requirements for wildland vegetation management fires (prescribed burning)	Effective June 1, 2002, requires smoke management plan after it is decided that a naturally-ignited fire will be managed for resource benefits	§80160(a), (i)
408.1	Administrative requirements for wildland vegetation management fires (prescribed burning)	New requirements for smoke management plans: (1) plan must specify contingency actions to reduce smoke exposure, (2) must comply with federal policy, (3) copy of any environmental impact document prepared for burn must be included, (4) estimate of fuel to be consumed must be included, and (5) estimate of particulate emissions must be included	§80160(b), (c), (d)
408.2 408.3	See above	Requires that permission for prescribed burning be governed by acreage burning allocation	§80145(a), §80160
408.4	See above	Requires daily reporting of acreage actually burned	§80145(h)
408.5	See above	Requires post burn smoke evaluation report	§80160(k)
409	Petition requirement for filmmaking and public exhibition burns	Adds public exhibition fires to fire types subject to petition requirement	None

Reg. 5 Section	Description of Section	Effect of Amendment	Parallel Title 17 Provision
410	Administrative requirements for marsh management burns	Requires submission of smoke management plan, information on alternatives to burning, and Dept. of Fish and Game necessity determination in order to receive acreage burning allocation	§80145(a), (g), (h); §80160; Cal. Health and Safety Code §41861
501	Record keeping requirements	Requires that those who conduct prescribed burns and marsh burns keep daily records of acreage burned	§80145(h)

Amendments to General Provisions of Regulation 5

Section 100 provides a general description of the Regulation, specifies the conditions each allowable fire type in Section 5-401 must satisfy, and describes the types of open burning or fires that are exempt from the requirements of the Regulation.

Exemptions (Section 110)

Staff are proposing a minor revision in subsection 5-110.3 to clarify that the use of flame cultivation to kill live seedling grass and weeds is not limited to orchards, vineyards and field crops.

Conditional Exemptions (Section 111)

The conditional exemptions in this section exempt certain fires conducted in accordance with a set of conditions from the general prohibition on open burning. The proposed amendments include new language to allow the APCO to waive in writing any condition and to clarify that a condition, requirement, or parameter stated in or imposed by a smoke management plan approved by the APCO may supersede any condition in this section. This language also is intended to address concerns that the proposed morning burn hour limit would adversely affect open burning.

Subsection 5-111.1

Amendments to this subsection would restrict the morning burn hour limit for allowable fires by prohibiting burning before 10:00 a.m. instead of “before sunrise.” Currently, the 10:00 a.m. restriction only applies to marsh management, stubble, and double cropping stubble fires. This measure will provide for good smoke dispersion even on permissive burn days by preventing burning when weak inversions locally persist until late morning. Restricting morning burn hours also reduces the fuel moisture content by allowing the sun to evaporate morning dew from the fuel surface. Low moisture content increases the combustion temperature, which optimizes combustion and decreases smoke production as the material burns. A hotter fire will also contribute to better smoke dispersion by

causing the smoke plume to rise higher. This proposal is not intended to apply to prescribed burning activities.

Subsection 5-111.2

Slight changes to language in this section were originally proposed to clarify the current afternoon burn hour limit. However, due to concerns raised about these proposed changes, most of the proposed new language has been dropped from the current proposal.

Subsection 5-111.4

A new condition has been added in subsection 5-111.4 to resolve an on-going enforcement issue caused by excessive smoke from smoldering tree trunks and stumps that are allowed to continue burning into the overnight hours. In order to reduce the adverse smoke impacts from this activity, the condition would require all piled materials to be managed prior to ignition to ensure that burning the material does not produce smoke after sunset on any day.

Amendments to Definitions

The proposed amendments in this section modify two existing definitions, delete obsolete language in Sections 5-208 and 5-211 that are no longer used in the Regulation, and add two new definitions.

Section 5-208

Staff proposes to modify the definition of “Hazardous Material” to address an enforceability issue caused by a lack of clarity. This proposal clarifies that hazardous material means any combustible or flammable material that poses a fire or explosion hazard including, but not limited, to vegetation cleared to create or maintain a firebreak around a structures on a property as required to comply with Public Resources Code section 4291 to reduce the risk of a wildfire. This proposal is also intended to help burners and local fire agencies understand that Section 5-401.6 essentially regulates two types of Hazardous Material fires: those that are related to Public Resources Code section 4291 and those that are not.

Section 5-213

In Section 5-213, the definition for “prescribed burning” has been expanded to be consistent with the Guidelines and reflect the needs of the District. Under this proposal, four existing fire types in the Regulation, if the fire is expected to exceed 10 acres in size or burn piled material cleared or generated from more than 10 acres of land, would be regulated by the same requirements as prescribed burning. The affected types of burns include Forest Management and Range Management fires, Hazardous Material fires that are not related to Public Resource Code section 4291, and any Crop Replacement fire for the purpose of establishing an agricultural crop on previously uncultivated land. Each of

these fires would then be subjected to all requirements for Wildland Vegetation Management fires, such as the submittal and approval of a smoke management plan.

In addition, any naturally-ignited wildland fire managed for resource benefits would be defined as a type of prescribed burning under the proposed amendments.

Sections 5-221 and 5-222

Two new terms, “forest” and “marshland,” are also proposed in new Sections 5-221 and 5-222 to help clarify the regulatory requirements for Forest Management, Marsh Management, and Wildland Vegetation Management fires.

Amendments to Standards

The proposed amendments in Section 5-300 are intended to clarify the compliance standards of the Regulation. To accomplish this, staff propose to include certain existing requirements for allowable fires, which are not clearly enforceable under other sections or standards of the current Regulation, in an existing standard (subsection 5-301.2) and a new proposed standard (subsection 5-301.3).

Besides specifying enforceable standards for acreage burning allocation limits, the conditions in Section 5-111 and the administrative requirements in Section 5-400 of the Regulation, these changes would subject the conditions and requirements of a smoke management plan to an enforceable standard. This proposal would also satisfy one of the requirements of the Guidelines.

In effect, these changes would strengthen the enforceability of the Regulation and help burners understand and comply with all requirements they are subjected to. Ultimately, these changes would also help reduce the potential of smoke impacts from open burning.

Amendments to Administrative Requirements

Section 5-400 describes the specific requirements for each allowable fire type, sets forth conditions an applicant must satisfy to qualify to burn debris cleared from land in agricultural use, and describes the requirements for granting emergency waivers from these requirements. Section 5-400 also includes the notification requirements for certain allowable fires, and additional requirements for prescribed burning and the occasional fire set for filmmaking.

No substantive changes are proposed for Section 5-403 (Agricultural Land Use) and Section 5-404 (Emergency Waivers). Only minor clarifications are proposed to improve the enforceability of these sections. In addition, staff proposes to delete the requirements in Section 5-405 and subsection 5-401.14 for Waste Propellant, Explosives and Pyrotechnics fires. These sections have expired so are no longer relevant.

Allowable Fires (Section 5-401)

There are several substantive amendments proposed in this Section. The first proposal, which is discussed below in Section 5-406, would expand the Prior District Notification requirements to include the remaining five allowable fire types currently not required to notify the District prior to burning: Crop Replacement, Orchard Pruning and Attrition, Double Cropping Stubble, Flood Debris, and Forest Management. The primary purpose of this proposal is to help the District satisfy the annual reporting requirements in the Guidelines. The additional information obtained would also be used to improve the District's open burning emissions inventory because the burning data would be more accurate and complete.

The remaining proposed amendments in Subsections 401.2, 401.5, 401.6, 401.7, 401.8, 401.9, 401.11, and 401.12 are minor non-substantive revisions intended for clarify and consistency in existing requirements of the Regulation.

Subsection 5-401.1

A minor revision in this section is proposed to clarify that Disease and Pest fires are a type of agricultural fire only. This proposal is also intended to reflect an existing requirement and current policy in the District's Compliance and Enforcement Division (C&E).

Subsection 5-401.3

In this subsection, the proposed amendments would add specific minimum drying time periods for pruning performed between February 15 and April 30 for integrated pest management purposes. The proposed minimum drying periods, 30 days for trees and branches over six inches in diameter and 15 days for grape vines and branches less than or equal to six inches in diameter, are less than the minimum 60-day drying time condition in Section 5-111.4 for piled material. This proposal is in response to a request from the Coast Agricultural Commissioners and Sealers Association, which includes members that represent the Bay Area, who pointed out that the current 60-day drying time condition and the orchard pruning permissive burning period did not allow growers to utilize a recommended disease control practice, which is to delay or time dormant pruning to avoid times of highest disease occurrence or potential to spread.

Subsection 401.6

The proposed amendments to this subsection would add a condition that must be satisfied by burners who conduct fires to dispose of materials generated to comply with an order or notice issued by a fire official pursuant to Public Resources Code section 4291. The new condition, which states, "the material is inaccessible for removal by vehicle" reflects current District C&E Division policy and is intended to improve the enforceability of the Regulation.

At the request of Fire Safe San Mateo County, staff also proposes a 9:30 a.m. morning burn hour limit, instead of the proposed 10:00 a.m. general morning burn limit, for Hazardous Material fires involving piled material. This is intended to help accommodate

burning vegetation cleared by Fire Safe work crews to reduce fire hazards in urban/wildland interface areas.

Subsection 401.7

Staff proposes to allow fire training burns outside of the burn hour limits in subsections 111.1 and 111.2 if the APCO is notified in writing or facsimile at least 7 calendar days in advance. This new provision is intended to address an on-going issue raised by local fire agencies in the District, where the current burn hour limits effectively prohibit fire training exercises at night unless a variance is granted. This type of training is necessary for many fire agencies in the District.

Subsection 5-401.13

Staff also proposes revisions that would affect Wildlife Management fires (i.e., marsh or tule burning). Under the proposed revisions, Wildlife Management fires would be renamed “Marsh” Management fires to help clarify the applicability of this allowable fire type. Burners would be required to comply with the proposed requirements in Section 5-410, which are discussed in more detail below, and receive written APCO approval of a smoke management plan prior to burning. We are also proposing that a person who conducts a “Marsh” Management fire anywhere in the District must receive an acreage burning allocation from the APCO prior to burning during the fall and spring burning periods. This is a change from the current Regulation because an acreage burning allocation is now only required for fires conducted in the Suisun Resource Conservation District (SRCD) during the fall burning period, and because the allocation is obtained from the Solano County Sheriffs’ Dispatch. These changes are necessary for the District to be able to allocate acreage for marsh burning as part of the new smoke management program for prescribed burning and to satisfy the program requirement in the Guidelines to have a daily “burn authorization system” that includes marsh burning. The Solano County Sheriffs’ Dispatch has been consulted on this change and concurs with the proposal.

Subsection 401.16

In this subsection, the proposed language would prohibit Wildland Vegetation Management fires (prescribed burning) on no-burn days, as declared by the APCO. The effective date of this proposal is June 1, 2002. Currently, permission to burn on a no-burn day is governed by the 48-hour forecast decision issued by the APCO. The 48-hour forecast is discussed further in Section 5-408 below.

Subsection 401.17

An additional proposal would allow public exhibition fires on no-burn days, such as fires for air shows. Under this proposal, the burn applicant would have to submit a written

petition and receive APCO written approval prior to burning instead of having to apply for a variance.

Prior District Notification (Section 5-406)

The proposed amendments in this section would require persons conducting Crop Replacement, Orchard Pruning and Attrition, Double Cropping Stubble, Forest Management and Flood Debris fires to notify the District prior to burning. This will allow staff to develop more complete emissions estimates from these types of agricultural burns. Other proposed amendments would eliminate verbal notifications as a compliance option. District experience has found them to be burdensome to burners and ineffective in getting accurate and complete information. Mailed, faxed or electronic notification will be required.

Wildland Vegetation Management Burn Requirements (Section 5-408)

Besides changing the name to “Wildland Vegetation Management” Burn Requirements for consistency in the regulation, the substantive amendments proposed in this section are intended to satisfy the prescribed burning requirements of the Guidelines. In particular, the proposed changes in subsection 5-408.1 would clarify and specify what information must be included in a smoke management plan submitted for APCO approval. Other proposals would establish new requirements necessary for the District’s daily “burning authorization system” for prescribed burning, which is an important part of the District’s new smoke management program. Specifically, effective June 1, 2002 under subsection 5-408.3, prescribed burners would be required to receive an acreage burning allocation from the APCO prior to ignition. This proposal is an important change because the District’s daily “burning authorization system” will revolve around the acreage burning allocation, and because the current Regulation only requires the burner to provide notification to the APCO each day prior to ignition.

Another aspect of the new daily “burning authorization system” is that the acreage burning allocation will be determined by District meteorology staff each day in the morning based on that day’s forecasted meteorological conditions around the District. For example, on hot, still days burn allocations might be limited to 100 acres in each of Marin, San Francisco, and San Mateo Counties (which make up the new Coastal Section) and no acres allowed to be burned in the South or North Sections of the District. In contrast, on days with good air movement and cool temperatures, up to 500 acres might be allocated in each section of the District. The allowable acreage to be burned will be allocated by the burn coordinator in the Compliance & Enforcement Division according to the number of acres to be burned, and the location of burn sites. Ignition times will be staggered. All prescribed and marsh burning activities will be subjected to the requirements of this new system.

In subsection 5-408.2, staff proposes revisions that would no longer allow prescribed burning on a no-burn day. This proposal is a change from the current provision, where permission to burn on a no-burn day is governed by the 48-hour forecast issued by the

APCO. If the District gives a burner a “go” decision 48 hours before a proposed burn date, then the burner has permission to burn on that date even if due to drastic weather changes, it turns out to be no-burn day and the meteorological conditions are not conducive for burning. Under this proposal, effective June 1, 2002, the 48-hour forecast decision would no longer govern permission to burn on a no-burn day. When District meteorology staff determine that the conditions are such that no prescribed burning is desirable, a no-burn day notice is issued and the acreage burning allocation will be zero. Accordingly, no prescribed burning will be allowed for that day.

Proposed revisions to subsection 5-408.2 would also specify how prescribed burners get permission to burn on a permissive burn day. Under this proposal, permission to burn would be governed by the acreage burning allocation issued by the APCO. What this means is that, besides ensuring that the weather conditions prescribed in the smoke management plan are satisfied, a burner would still have to receive an acreage burning allocation from the APCO on the day of a planned burn even after a permissive burn day notice is issued. The effective date of this proposal is also June 1, 2002.

Under the proposed revisions to subsection 5-408.4, for each day on which burning occurs, prescribed burners would be required to report to the APCO the total acreage and tonnage of vegetation actually burned no later than 12:00 p.m. the subsequent day. This proposal is necessary for successful implementation of the District’s daily “burning authorization system” because this information will be used by District staff to determine how many acres should be allocated for prescribed burning and marsh burning on subsequent days. This proposal is a substantive change from the current requirement, which allows up to 30 days after completion of the burn project to report the acreage burned.

To be consistent with another requirement of the new Guidelines, staff proposes to require prescribed burners to submit a post-burn evaluation within 30 days after completion of the burn project that addresses whether or not the vegetation management objectives of the project were met and describes the observed smoke behavior. This proposal will provide District staff with valuable information that would be used to evaluate subsequent burn prescriptions and to determine future acreage allocations for prescribed burning.

Sometimes, a naturally ignited wildfire occurs in an area that has an exceptionally high fuel load, so that a decision is made by a fire official to allow the burn as a wildland resource management tool. An additional proposal would add new requirements for these naturally ignited wildfires, so that they can be considered a type of prescribed burning. When these wildland areas that could be burned exceed 10 acres in size, staff propose to require the fire official who would then manage the burn to register the potential project with the APCO annually, with updates as wildfires or changes to the project occur. The proposed effective date of this proposal is June 1, 2002.

Filmmaking Burn Petition (Section 5-409)

In order to address an issue raised by Travis Air Force Base, which burn materials as part of their annual air show, staff proposes to expand the filmmaking requirements in this section to apply to public exhibition fires. This proposal would allow a person to conduct a public exhibition fire on a no-burn day provided the APCO approves a written petition submitted by the burner, the APCO is notified on the day of the burn prior to ignition, and the written approval is available at the burn site for inspection by District staff. The proposed revisions would rename this section “Filmmaking and Public Exhibition Burn Petitions” from “Filmmaking Burn Petition ” to reflect this change. The proposal is expected to reduce a number of recurring variances involving public exhibition burns by allowing these fires on no-burn days provided certain conditions are met. This would reduce the amount of time and resources spent in the variance process and provide a way to streamline and improve the District's management of this type of allowable fire.

Marsh Management Burn Requirements (New Section 5-410)

The proposed amendments in this section are necessary for the District to allocate acreage for marsh burning as part of our new daily “burn authorization system” and to ensure the successful implementation of the District’s new smoke management program. These revisions would also implement several smoke management program requirements in the new Guidelines. The proposed amendments consist of four new requirements that would become effective June 1, 2002.

- (1) In order to receive an acreage burning allocation, a marsh burner would be required to submit a smoke management plan to the APCO using a District-approved form at least 30 days prior to the proposed burning.
- (2) This provision would make more explicit a requirement in existing law (Cal. Health and Safety Code Section 41861; current Section 401.13 of Regulation 5) that a determination of the necessity of the burn be obtained from the California Department of Fish and Game (DFG) before each burn. The Health and Safety Code has required since 1975 that the DFG provide the APCO with a written determination of necessity for each burn. Specifically, in securing the written necessity statement required by Health and Safety Code Section 41861, a marsh burner would be required to submit to DFG and the APCO information from their land management plans to assist DFG in determining whether a burn is “desirable and proper” as it is required to do by the Health and Safety Code Section 41861. Where DFG is conducting a burn on state lands, DFG would be required to submit this information to the APCO prior to burning.
- (3) A marsh burner would have to submit the written statement from DFG required by Health and Safety Code Section 48161 to the APCO prior to burning.
- (4) For each day on which burning occurs, a marsh burner would be required to report to the APCO the total acreage of vegetation actually burned no later than 12:00 p.m. the subsequent day. This proposal is necessary for successful implementation of the District’s daily “burning authorization system” because the information will be used

by District staff to determine how many acres should be allocated for marsh burning and prescribed burning on subsequent days.

Amendments to Monitoring and Records Requirements

Under Section 5-501, the current regulatory language requires open burning records for Waste Propellant, Explosives and Pyrotechnics fires. However, these requirements have been obsolete since January 1, 1997, when a previous revision went into effect prohibiting this type of fire. This type of fire was primarily conducted by United Technologies Corporation (UTC) to dispose of waste rocket propellant. UTC has since changed to an alternative, non-burning method of waste disposal.

The proposed amendments in this section would delete the obsolete regulatory language for Waste Propellant, Explosives and Pyrotechnics fires, and impose new record keeping requirements for prescribed burning and marsh burning activities. If subjected to this proposal, a person who conducts a Wildland Vegetation Management fire (prescribed burning) or a Marsh Management fire (marsh burning) would be required to maintain specified records on a daily basis, retain the records for at least twelve months and make the records available upon request. The information required by this proposal is important for District quality assurance purposes such as the verification of actual burn acreage, and to assist in staff's evaluation of the methods or techniques used by burners to estimate burn acreage. The proposed effective date of this proposal is June 1, 2002.

EFFECT OF AMENDMENTS

The proposed amendments primarily affect two types of burning: prescribed burning and marsh burning. The sections below discuss in detail how the amendments affect requirements for prescribed burning and marsh burning.

Effect of Amendments on Prescribed Burning

For prescribed burning, the amendments have two primary effects. First, they impose an explicit daily acreage allocation system on prescribed burning. Second, they add a number of minor requirements for the plans that are already required by the regulation. Each of these areas is discussed below.

For prescribed burning, the primary effect of the amendments is to impose an explicit daily acreage allocation system on prescribed burning. Although there is currently no explicit acreage allocation system for prescribed burning set forth in Regulation 5, the regulation already gives the APCO (in Section 111.9) authority to impose restrictions for all fire types on "tonnage, volume or acreage of material burned on any given day and/or at any specified site." Prescribed burners are currently required to submit prescribed burn plans pursuant to Section 408 of Regulation 5. District staff review each prescribed burn plan and, where appropriate, impose acreage limitations as a condition of approval. As a result there is, under the existing regulation, a de facto acreage allocation system. In

2000, for example, the District reviewed and approved 23 prescribed burn plans. For seven of the proposed burns, the District imposed daily acreage limitations as a condition of approval. For most of the burns, the District also imposed requirements on meteorological conditions that would, for example, restrict burning under specified wind conditions and would have the same effect as an acreage allocation system. This is because, under an acreage allocation system, very limited or no burning is allowed when there are undesirable meteorological conditions.

Under the current regulation, permission to start a prescribed burn is governed by a 48-hour forecast. If an approved prescribed burn plan includes no limiting prescriptions, a fire may be conducted even on a no-burn day if it was given a “go” in the 48-hour forecast. However, the current regulation (Section 401.16) gives the APCO approval authority for prescribed burn plans and the power to impose conditions on approval. District practice for many burns has been to include as a condition of plan approval a provision that limits burning to permissive burn days only, even where the applicant sought approval under the 48-hour system. In 2000, 7 of the 10 prescribed burns carried out (and 785 of the 829 acres burned) were subject to conditions limiting burning to permissive burn days. If the burn is limited to permissive burn days, the burner may get a “go” forecast the day before a burn but must wait to the morning of the burn to ensure that all prescriptions can be met. As a result, because most of these burns were already subject to daily “go/no-go” determinations, the change to an explicit daily acreage allocation system is not expected to have any significant effect on amounts of acreage burned or on burn planning, staging, and execution.

The other change in prescribed burning requirements is the addition of new elements to be included in prescribed burn plans and changing the name of the plan to a “smoke management plan.” Under the existing regulation, the following nine elements are required to be included in a prescribed burn plan:

1. Location and specific objectives of each proposed burn;
2. Acreage or tonnage, type, and arrangement of vegetation to be burned;
3. Directions and distances to nearby sensitive receptor areas;
4. Fuel condition, combustion and meteorological prescription elements for the project;
5. Projected schedule and duration of project ignition, combustion, and burn down;
6. Specifications for monitoring and of verifying critical parameters;
7. Specifications for disseminating project information;
8. Certification by a resource ecologist, biologist, or forester that the proposed burning is necessary to achieve the specific management objective(s) of the burn plan; and
9. Smoke management plan.

The amendments would add the following new requirements:

1. The plan must specify contingency actions to reduce smoke exposure;
2. The smoke management plan must comply with federal policy;

3. A copy of any environmental impact document prepared for burn must be included with the plan;
4. An estimate of fuel to be consumed must be included; and
5. An estimate of particulate emissions must be included.

The new elements are included to implement Title 17 requirements. None of these new requirements would require significant new work that would have any potential to delay or force cancellation of a prescribed burn. The first three new elements would ensure, however, that adequate consideration is given to means to minimize adverse impacts from smoke. The fourth and fifth requirements are simple calculations based on the estimated quantity of vegetation to be burned, which is information already required to be included in plans.

In light of the foregoing discussion, the Regulation 5 amendments are not expected to change amounts or types of prescribed burning in the Bay Area. The primary reason, as noted above, is that the amendments simply make more explicit an existing regulatory program for prescribed burning. Though they make an daily acreage allocation system explicitly applicable to prescribed burning, such a system is already in effect and is authorized by the existing regulation. The amendments clarify current practice and make it more certain, predictable, and enforceable. Because of the increased certainty and clarity, the regulation should provide for better coordination between the District and prescribed burners. The amendments are not likely to result in the delay or cancellation of prescribed burns. Most delays or cancellation result from lack of resources (firefighters and equipment) or from the limitations imposed through the burn plan prescriptions (such as wind speed or direction requirements). The Regulation 5 provisions relating to District authority to impose these conditions are unchanged by the proposed amendments.

Where the amendments do make changes in requirements for prescribed burning, those changes are not expected to produce changes in amounts or types of burning. The changes primarily add new required elements for smoke management plans. But, as discussed above, the new requirements only require minor additional documentation to be added to a plan package and should not result in any significant problems or delay.

Effect of Amendments on Marsh Burning

For marsh burning, the amendments have three primary effects. First, they modify the existing daily acreage allocation system for marsh burning. Second, they require that burners submit a smoke management plan to the APCO. Third, they add a requirement that burners consider alternatives to burning and provide that information to the Department of Fish and Game (DFG), which is required by current law (Cal. Health and Safety Code Section 41861) to certify that a burn is “necessary and proper” and provide that certification to the APCO. Each of these areas is discussed below.

For marsh burning, there is already an explicit acreage allocation system in place in current Section 401.13. For areas outside of the Suisun Resource Conservation District

(SRCD), where burning occurs infrequently, the regulation prohibits the burning of more than 100 acres of a property in a single day. Within the SRCD, where most of the burning occurs, a marsh burner must receive an acreage allocation from the Solano County Sheriffs' Dispatch. The total daily acreage allocation is developed by District meteorologists and forwarded to the Solano County Sheriff. As a backstop, the current regulation states that the total acreage that can be burned throughout the SRCD on a single day may not exceed 300 acres in the fall and 600 acres in the spring. In addition, no more than 100 acres of a single property or series of properties may be burned in a day. Under the current regulation, these fires may be conducted only on permissive burn days. The amendments would simply relieve the Solano County Sheriff of responsibility for making the sub-allocations to individual burners. This change therefore has no potential to change the amount or type of burning.

The second proposed change in marsh burning requirements is that marsh burners would be required to submit a smoke management plan to the APCO. District staff have worked with SRCD staff and landowners within the SRCD to develop a simple one-page form that would be used for the plans. Under the current regulation, the only paperwork required of a burner is information required by DFG to verify land area burning frequencies. The proposed smoke management plan would require submission of a single additional form. This simple form is not expected to impose such a burden to affect amounts of marsh burning.

The third proposed change in marsh burning requirements is that marsh burners would be required to submit information on alternatives to burning in securing the burning necessity statement from the California Department of Fish and Game. This necessity statement has been required from marsh burners since legislation added Section 41861 to the Health and Safety Code in 1975. The proposed amendments ensure that DFG receives adequate information regarding proposed burns so that it can assess the necessity for each burn. This information will also be provided to the APCO. Though this Regulation 5 requirement would impose an administrative requirement on burners, the requirement is implicit in existing law. Since this requirement is implicit in existing law, the amendment is not expected to change in any way the amount of marsh burning carried out. Even if the amendment imposed a new burden, burners will be filling out a simple smoke management plan, and the information on alternatives could easily be provided to DFG and the APCO at the same time the smoke management plan is provided to the APCO.

EMISSIONS AND EMISSION REDUCTIONS

Total estimated emissions from open burning are small compared to the overall emissions from all source categories in the District emission inventory. According to the District's 1999 base year emission inventory, the estimated emissions from open burning for calendar year 2000 are 0.53 tons per day of PM10, 6.05 tons per day of carbon monoxide (CO), 0.17 tons per day of nitrogen oxides (NOx), and 0.25 tons per day of volatile organic compounds (VOC) on an annual average basis. These estimates account for less

than 0.1% of the overall District emissions for PM10, NOx and VOC. However, this percentage is misleading because the inventory includes emissions from thousands of motor vehicles and industrial sources, which are produced all year long. The inventory also does not reflect the dense concentration of smoke emissions from a burn that impacts a limited, but populated area downwind. In particular, the localized particulate matter concentrations that result from a burn greatly exceed the ambient concentrations that result from other dispersed particulate matter emission sources.

Because reliable information for estimating emission reductions from the amendments proposed is not available, staff is currently unable to quantify the emissions reduction potential of the proposal. In addition, because the proposed amendments do not impose any new emission standards that specifically reduce emissions, and because increases in prescribed burning are projected irrespective of the proposed amendments, staff does not expect a reduction of total District-wide emissions from this proposal. In fact, the projected increases in prescribed burning activities may offset any reductions and actually increase smoke emissions District-wide on an annual average basis.

Nevertheless, expected results from the proposal include more effective smoke management that reduces the potential for smoke impacts from open burning and in particular prescribed and marsh burning activities. Through implementation of the daily “burn authorization system” and the other proposals developed to improve smoke management, the changes will not only improve smoke management on a temporal and spatial basis; they will also address the problem of impacts from too many large fires simultaneously occurring in close proximity to population centers and sensitive receptor sites. In addition, the changes will meet the challenge posed by the projected increases in prescribed burning activities. The anticipated net effect is that emissions would be spread over several days instead of all being emitted on the same day. Areas and populations downwind from these burns would have fewer smoke impacts because smoke will be less likely to drift into populated areas and less concentrated when it does.

SOCIOECONOMIC ANALYSIS

Pursuant to Section 40728.5 of the California Health and Safety Code, the District is required to perform a socioeconomic analysis for certain rule development activities. Specifically, this analysis is required whenever the District intends to propose the adoption, amendment or repeal of a rule or regulation that will significantly affect air quality or emissions limitations.

However, staff determined that the proposed amendments to Regulation 5 will not significantly affect air quality or emission limitations, and therefore this analysis is not required.

INCREMENTAL COST ANALYSIS

Pursuant to California Health and Safety Code Section 40920.6, the District is also required to perform an incremental cost analysis prior to adopting or amendment of a rule or regulation to meet best available retrofit control technology (BARCT) or feasible measure requirements under the California Clean Air Act. However, staff have determined that the proposed amendments to District Regulation 5 do not add BARCT requirements or involve emission control options, and therefore are not subject to the requirements of this State law.

ENVIRONMENTAL IMPACTS

Pursuant to the requirements of the California Environmental Quality Act (Public Resources Code section 21000, *et seq.*), the District has prepared an initial study to determine the potential environmental impacts of the proposed amendments to District Regulation 5: Open Burning.

The initial study is a revision of an earlier negative declaration prepared for a project that also included amendments to Regulation 3: Fees. The amendments to Regulation 3 would have required the payment of fees to the BAAQMD for prescribed burning and marsh burning. The amendments to Regulation 3 have been dropped from the current project.

The revised initial study concluded that the proposed amendments to Regulation 5 would not result in any significant environmental impacts. A CEQA negative declaration is proposed by staff for adoption by the Board in connection with these amendments.

The revised negative declaration was circulated for public review and comment during the period from January 25, 2002 to February 25, 2002. District staff discussed the document with California Department of Parks and Recreation, California Department of Forestry and Fire Protection, East Bay Regional Park District, Suisun Resource Conservation District, and the California Air Resources Board. These agencies expressed no concerns about the revised document and did not submit any written comments. One comment was received from the San Francisco Public Utilities Commission (SFPUC). SFPUC was concerned about a provision in Subsection 5-111.4 that would require attempts to end burning if three or more public complaints were received. However, this language had already been dropped from the proposal and the SFPUC concern has been addressed (see comment 41 below and response).

REGULATORY IMPACTS

California Health and Safety Code Section 40727.2 requires the District to identify existing federal and District air pollution control requirements for the equipment or source type affected by the proposed rule or regulation. The District must then note any differences between these existing requirements and the requirements imposed by the proposed change.

Upon review, staff determined that there are not existing federal air pollution requirements for open burning affected by the proposed amendments. The federal EPA did issue a national policy that addresses how best to achieve national clean air goals, including EPA's national air quality standards for particulate matter and regional haze program, while improving the quality of wildland ecosystems through the use of prescribed burning. Called the Interim Air Quality Policy on Wildland and Prescribed Fire (EPA, 1998), this policy has been used by District staff as well as other air districts in the State as a guideline document for prescribed burning activities since it was issued. The Interim Air Quality Policy is not a federal regulation or air pollution control requirement, so this Section does not apply.

The only air pollution control requirements imposed on open burning are those incorporated into Regulation 5.

RULE DEVELOPMENT SUMMARY

District staff initiated this rule development effort in late 1999 when the final revisions to the State's Agricultural Burning Guidelines proposed by ARB were being drafted, and it became apparent that implementation of the requirements would impose costs on the District. District staff conducted two scoping workshops on April 17, 2000 and May 4, 2000 to discuss the initial draft of an open burning fee proposal. Since then, staff participated in the final promulgation of the new Guidelines, solicited input from affected parties, and began developing the amendments to Regulation 5 and the open burning fee proposal in Regulation 3.

Staff conducted a workshop on August 9, 2001 in Fairfield, CA so that private landowners in the Suisun Marsh had an opportunity to discuss the proposed amendments. A second workshop was held on August 10, 2001 in San Francisco at the District offices.

Except for the concerns about any new fee for marsh burning and prescribed burning, the issues raised in the comment letters received after the recent workshops have been addressed or resolved. Staff subsequently met separately with East Bay Regional Park District, SRCD and DFG staff to discuss their issues, and had phone conversations with BLM, Marin Municipal Water District staff to address their issues. After the proposed amendments were finalized, public hearings on November 7, 2001 and December 19, 2001 were set.

On November 7, 2001, the Board conducted a public hearing to consider the proposed amendments to Regulation 5, to initiate the first of two public hearings required for the open burning fee proposal in Regulation 3, and to consider adoption of the CEQA Negative Declaration for the proposed amendments. Most public testimony at the hearing focused on concerns that the fee proposal would hinder prescribed burning. Speakers also questioned: (1) whether further regulation and fees were justified because open burning accounts for only 0.1% of the District's emissions inventory; (2) whether

the District has a legal obligation to adopt the smoke management guidelines in Title 17; and (3) whether ARB would adopt new prescribed burning requirement for the District if the District failed to adopt the proposed amendments to Regulation 5.

In response to the testimony heard on November 7, 2001, the District's Board of Directors continued the hearings on proposed amendments to Regulations 3 and 5 until December 19, 2001, which was the date already scheduled for the required second public hearing on the fee proposal.

On December 7, 2001, District staff held an Open Burning Fee Proposal Stakeholders meeting to discuss any issues related to the fee proposal and the proposed amendments to Regulation 5. Seven individuals attended the meeting, including representatives from the Suisun Resource Conservation District, East Bay Regional Park District, Reclamation District #2127 in the Suisun Marsh, and two private landowners in the Suisun Marsh.

After considering several suggested alternatives to the fee proposal, District staff committed to making a recommendation to the District's Board of Director's at the December 19, 2001 hearing to postpone the fee proposal until after staff had the opportunity to collect actual cost information for the new smoke management program, and to conduct additional public workshops to determine whether or not to pursue an alternative fee proposal. The meeting attendees expressed support for this strategy and for the proposed amendments to Regulation 5.

On December 19, 2001, two public hearings were conducted: one for the fee proposal in Regulation 3 and the second for the proposed amendments to Regulation 5. During the first hearing, District Board of Director's concurred with staffs' recommendation to defer action on the fee proposal and return to the Board with detailed smoke management program costs in one year.

The second hearing conducted on December 19, 2001, was to adopt the proposed amendments to Regulation 5 and approve an associated CEQA Negative Declaration. This hearing had been continued from the November 7, 2001 public hearing.

The issues raised during this hearing included: (1) the fiscal implications of adopting the proposed amendments and implementing the new smoke management program, (2) concerns about the risk of overturning Board adoption of the Negative Declaration, because the document has fees intermixed in it, and possible remedies; and (3) concerns about the timeliness of a DFG response with respect to a proposal that requires DFG to provide a written determination of necessity for each marsh burn.

In response to the testimony heard on December 19, 2001, the Board continued the hearing to another date certain and directed staff to provide additional information about the response time from DFG.

ADDITIONAL OUTREACH EFFORTS

Staff initiated extensive public outreach efforts after the December 19 hearing to identify and resolve any remaining concerns or issues. These efforts include face-to-face meetings with CDF (Sonoma/Lake/Napa Unit); numerous phone conversations with land management agencies, fire agencies and a private landowner; providing informal review of the revised CEQA documents before the formal public comment period; starting development of guidance document to assist prescribed burners with smoke management plan submittal; and committing to using staff resources to authorize fires as needed when a fire agency cannot provide this service.

The outcome of these efforts includes minor changes to the proposed amendments (including dropping certain language), and additional compliance assistance. The District is committed during implementation of the Regulation to continue outreach efforts with fire agencies and the public to advise burners of the new requirements, and to minimize any added workload on fire agencies.

DISTRICT STAFF IMPACTS

Adequate staff resources are essential to successfully implement and administer the proposed amendments to Regulation 5 and the District's new smoke management program for prescribed burning, and to satisfy the new Guidelines. However, these changes are also expected to significantly impact District staff resources.

For the current fiscal year (FY01-02), the budget for the District's new smoke management program for prescribed burning is approximately \$582,000/year. This cost is based on funding 5.5 full-time positions: three air quality inspectors, one air quality specialist, and half of a supervising air quality inspector in the Compliance & Enforcement Division; and one meteorologist in the Technical Services Division. In addition, the use of existing technical support and clerical staff resources is expected to supplement this expenditure.

Under this new program, only existing District staff resources will be used to conduct administrative, compliance and enforcement activities associated with prescribed burning and marsh burning. Several examples of these enhanced activities include inspecting burn sites; evaluating and approving smoke management plans; developing and revising open burning policies and procedures; making burn forecasts and day-of-burn acreage allocations; annual reporting to ARB; enforcement actions; and developing and coordinating outreach with other air districts, fire agencies, DFG, county Agricultural Commissioners, SRCD, and other land management agencies.

COMMENTS AND RESPONSES

This section summarizes written comments on the District proposals and CEQA document. The section is divided into three subsections: (1) Comments on Working Drafts, (2) Comments on the Draft for the November Hearing, (3) Comments on the Draft for the December Hearing, and (4) Comments on the Draft for the March Hearing. All District responses are made in light of the language contained in the March draft so that it is clear whether a particular concern remains as an issue. Where a comment addressed language from an earlier draft that has since been modified or deleted, that fact is noted in the response.

Comments on Working Drafts

Comments 1 through 29 address working drafts. Comments on working drafts were received from the Marin County Fire Department (MCFD), federal Bureau of Land Management (BLM), Marin Municipal Water District (MMWD), East Bay Regional Park District (EBRPD), Sonoma-Lake-Napa Ranger Unit of the California Department of Forestry & Fire Protection (CDF-SNLRU), City of Gilroy (CG), Coast Agricultural Commissioners and Sealers Association (CACSA), California Department of Fish & Game (DFG), and the Suisun Resource Conservation District (SRCD).

- 1. The District is imposing a new smoke management program on a voluntary basis that targets such a minor producer of emissions, and fees to fund the program, that we believe are not needed or required by state law. (MCFD)**

We are proposing a smoke management program for prescribed burning to ensure statewide consistency with the amended Agricultural Burning Guidelines in Title 17 of the California Code of Regulations, to ensure consistency with federal regional haze requirements and prescribed burning policy, to address the same concerns in the Bay Area that prompted revision of the state Guidelines, and to address compliance and enforcement issues identified since 1994, when Regulation 5 was last amended. Although emissions from fires as a percentage of total daily or annual emissions are typically minor, emission concentrations downwind from a fire are quite high and hazardous to health.

- 2. The proposed definition of a “forest” in Section 5-221 should reference a document that refers to the California Native Plant Society classification system. (MCFD)**

We agree and have modified the definition of “forest” in Section 5-221.

- 3. The proposal in Subsection 5-111.4, which would require that “ ... all tree trunks and stumps must be cut or split into small enough sections to ensure that burning the material does not produce smoke after sunset on any day,” is unreasonable in a wildland setting. We would**

rather extinguish smoldering trunks and stumps rather than cut or split them. (MCFD)

The suggested means of compliance would be acceptable if approved in connection with a prescribed burn plan (see Section 5-111 which allows plan requirements to supersede requirements of Subsection 5-111.4).

In addition, the proposed language has been revised to eliminate

4. Why does the proposed definition of a “forest” in Section 5-221 exclude the eucalyptus series? (MCFD)

The exclusion is intended to ensure that alternatives to burning eucalyptus are evaluated. The result of excluding eucalyptus from the definition of “forest” is that burning of eucalyptus is treated as prescribed burning and is not exempted pursuant to Section 5-213 (which exempts forest management fires of 10 acres or less from prescribed burning requirements). Burning eucalyptus would therefore be subject to Subsection 5-408.1.k., which requires the burner to include an evaluation of alternatives to burning. In many cases, eucalyptus material can be readily used in the region’s growing biomass recycling and energy production industries should the land manager decide to utilize these alternatives. If no alternatives to burning are reasonable, prescribed burning of eucalyptus can be approved.

This provision is one part of the District’s plan to provide for analysis and periodic assessment of actions that are taken to minimize smoke through the use of non-burn alternatives, one element of the amended Title 17 requirements.

5. In Subsection 5-111.3, the District proposes that, “upon notification of three or more complaints by a District inspector, a person shall cease the burning activity that day.” We are concerned that a small number of confirmed complaints, even those based only on aesthetics, could potentially stop a prescribed burn. Also, further clarification of what you mean by cease burning activity is needed. (MCFD, BLM)

This language has been deleted from the current proposal as it restates existing District enforcement policy on public nuisances regulated under California Health and Safety Code section 41700.

6. The proposed open burning fee, Schedule R in Regulation 3, is reasonable. (MMWD)

Fees have been dropped from the current proposal.

- 7. In Section 5-401.15, we suggest adding “annual grass” to the description of wildland vegetation and burning for control/reduction of exotic weeds. (BLM)**

After discussions with BLM staff, we have added the term “grass” to the proposed section. Though controlling exotic weeds is an appropriate objective of a prescribed burn plan, we cannot anticipate nor do we wish to include a list of all possible objectives in this section.

- 8. Some clarification is needed in the first paragraph of Section 5-111 to provide that the conditional exemptions in this section may be superseded by conditions and/or parameters of prescribed burn plan approved by the APCO. (BLM)**

Proposed language has been added to Section 5-111 to clarify that the conditions, requirements, or parameters in a written smoke management burn plan approved by the APCO may supersede any of the conditional exemptions.

- 9. The proposed amendments to the conditional exemptions in Subsections 5-111.1 and 111.2 that prohibit allowable fires before 10:00 a.m. and clarify the afternoon burn hour limits are unrealistic because they will unnecessarily restrict prescribed burning activities and pose a significant health and safety threat to fire personnel conducting this type of burning. (MCFD, BLM, CDF-SLNRU)**

See response to comment 8.

- 10. We are concerned that the proposal in Subsection 5-408.3, which would require a person to receive an acreage burning allocation prior to ignition of a prescribed burn, could significantly impact the cost of our prescribed burning program and make conducting a burn very difficult logistically because assembling fire personnel and resources involves lengthy travel times and assistance from outside agencies. (BLM, CG)**

The proposal does not significantly change existing authority. Under the District’s current program, most prescribed burns are subject to a de facto acreage allocation system and to a “no go” call on the morning of a proposed burn. Regulation 5 already gives the APCO (in Section 111.9) authority to impose restrictions for all fire types on “tonnage, volume or acreage of material burned on any given day and/or at any specified site.” In 2000, for example, the District reviewed and approved 23 prescribed burn plans. For seven of the proposed burns, the District imposed daily acreage limitations as a condition of approval. For most of the burns, the District also imposed requirements on meteorological conditions that would, for example, restrict burning under specified wind conditions and would have the same effect as an acreage allocation system. In addition, District practice for many burns

has been to include as a condition of plan approval a provision that limits burning to permissive burn days only, even where the applicant sought approval under the 48-hour system. In 2000, 7 of the 10 prescribed burns carried out (and 785 of the 829 acres burned) were subject to conditions limiting burning to permissive burn days.

To minimize the possibility of a last minute halt to a burn, District meteorology staff has committed to provide enhanced burn forecasting services including 96-hour trends, 72-hour outlooks, a 48-hour burn forecast and 24-hour burn authorization for specific prescribed burning projects. In addition, the burn forecast zones in the District have been modified in a way that is intended to increase the opportunities to burn.

- 11. In Section 5-408(i), we suggest deleting the term “registered” when discussing certification of a prescribed burn plan by a professional and recommend that certification may also be made by the agency land manager. (BLM)**

We have discussed the language with BLM staff and have agreed on “qualified professional.”

- 12. The regulations should adopt terminology that is consistent with current professional practices of wildland burning. Any type of burning, be it hazard reduction, wildland vegetation management, or wildlife management, should be termed a prescribed burn independent of District permit requirements. (MMWD)**

While District staff recognize the value of consistent terminology, we feel that it is appropriate to impose different requirements on different types of burns. Given the structure of the rule, calling all of these types of burns “prescribed burning” would not allow us this regulatory flexibility. For example, wildlife management fires in the Bay Area are only conducted in marshland areas, and we have to manage unique problems and issues associated with these burns. However, to eliminate some potential confusion in this area, we are proposing to change the name for Wildlife Management fires in Subsection 5-401.13 to “Marsh” Management fires. Similarly, the proposed amendments that apply to Hazardous Material and Wildland Vegetation Management fires are intended to reflect the need to manage the unique problems and issues associated with these burns.

- 13. We suggest that there should be a professional standard for prescribed burning on all wildlands. Plan requirements for prescribed burns and wildlife management smoke management plans should be identical. (MMWD)**

We disagree with this suggestion for the reasons discussed in the response to comment 12.

- 14. Burn applicants should have reasonable prior expectation of when prescribed burn plans might be approved and that District staff will be able to complete their review of a smoke management plan for marsh management burning within the 30-day time frame proposed in Section 5-410. (MMWD, SRCD)**

District staff has committed to completing smoke management plan review for prescribed burns and marsh burns within the 30-day periods. The Compliance and Enforcement Division's written policy will be revised to include the 30-day review period. In addition, burn applicants are free to submit a plan 45 or 60 days prior to the proposed burning should the applicant have concerns about the turn-around time for approval. Applicants should ensure that a plan is complete and should contact District staff for answers to questions.

- 15. Because the proposed amendments reserve final approval for ignition of a prescribed burn to the day of the burn (i.e., until a acreage burning allocation is received), we propose a "likelihood of approval" rating be developed and included in the final regulation. (MMWD)**

We agree that that there is a need for some indication or level of confidence in the District's 24-hour burn authorization when getting an acreage burning allocation the next morning. However, we also feel that it is more appropriate to incorporate this type of information in written Compliance & Enforcement Division policy instead of in Regulation 5 because this approach provides more flexibility in our new smoke management program for prescribed burning.

- 16. Hazardous Material is defined in multiple locations in the proposed regulations often in a confusing manner. We suggest that the final regulation consolidate and clarify definitions of Hazardous Material. (MMWD)**

We agree and have revised the definition of Hazardous Material in Section 5-208 and the language in Subsection 5-401.6 in consultation with MMWD staff.

- 17. Under Subsection 5-401.1 (Disease and Pest fires), specifying "agricultural fires" may limit the use of fire to control exotic weeds, such as the control of Yellow Star Thistle, on open space and parklands. As the general public continues to express concerns over the use of pesticides, we would not like to see this type of fire restricted to production agriculture only. (CG)**

The noted change to Subsection 5-401.1 is intended to clarify an existing requirement and reflect the current policy of the District's Compliance & Enforcement Division for a type of agricultural fire. Fires to control Yellow Star Thistle are not subject to Subsection 5-401.1 and instead are regulated as prescribed burning under Subsection 5-401.15 (Wildland Vegetation Management). We are informed that all of Gilroy's open burning activities to control Yellow Star Thistle have been regulated as prescribed burns. Nothing in the proposed amendments would eliminate the City's ability to use prescribed burning for Yellow Star Thistle.

- 18. Subsection 5-401.15 continues to reserve wildland vegetation management burning for state and federal agencies. Our municipality has jurisdiction over open space land. We would like to see Subsection 5-401.15 allow municipalities to conduct prescribed burning for management of habitat and urban/wildland interface fuel management. (CG)**

Subsection 5-401.15 and District Compliance & Enforcement Division policy already allow an entity other than a state or federal agency to conduct prescribed burning, provided the project is conducted "through a cooperative agreement or contract involving such agencies." This policy allows localities such as Gilroy to conduct prescribed burning in cooperation with the California Department of Forestry & Fire Protection or Department of Parks & Recreation. Because of District staff concerns about the risks associated with prescribed burning activities without adequate state or federal fire agency involvement, we are not proposing any changes to these provisions. Similarly Subsection 5-401.6 (Hazardous Material) already allows hazard reduction fires, including those for urban/wildland interface fuel management, provided the requirements of this specific allowable fire type are satisfied.

- 19. We are asking you to consider allowing growers of grapes and tree fruits in the District to burn agricultural prunings before the 60-day drying time period required for piled material in Subsection 5-111.4. This proposal would only apply to prunings performed for integrated pest management purposes between February 15 and April 30. (CACSA)**

In consultation with CACSA, language has been added to Subsection 5-401.3 to allow this practice.

- 20. The fee proposed in Regulation 3, Schedule R will effectively eliminate prescribed burning as a management option for reducing dangerous wildland fuels and impair or eliminate our agency's prescribed burning program. (CDF-SLNRU, EBRPD)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 21. The prescribed burning fee proposal in Regulation 3 would require up front payment even if the burn is not accomplished or attempted. We also question whether the proposed fees are justified and are concerned that collected fees may be used for other District programs. (BLM)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 22. We also question why the 25% discount (of the proposed burning fee in Regulation 3, Schedule R) is applied to wildlife management burns in marshland and not to wildland burning in general. (BLM)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 23. The fee proposal will have significant adverse impacts on EBRPD aesthetics, biological resources, cultural resources, hydrology and water quality, land use and planning, hazards and hazardous material and recreational use. The draft CEQA Initial Study should address these potentially significant impacts if the fee proposal is implemented. (EBRPD)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal. The CEQA Initial Study has been revised to address potential impacts from amendments to Regulation 5 only. The Initial Study concludes that there would be no impacts from revisions to Regulation 5 and a Negative Declaration is proposed for adoption.

- 24. The draft CEQA Initial Study prepared for the proposed amendments to Regulations 3 & 5 has not adequately evaluated potential added costs or the health and safety threat that the proposal (in Subsection 5-111.2) requiring fire suppression resources to stop all additional fire after two hours before sunset may have on fire personnel implementing a prescribed burn. The adverse impacts on land use planning from the acreage burning allocation not being available until the day of a burn in the morning, and the significant additional costs that may be incurred due to a zero or low acreage burn allocation are also does not adequately evaluated by the document. (BLM)**

Language has been added to Section 5-111 to clarify that the conditions and requirements of a written smoke management plan as approved by the APCO may supersede any one of the conditional exemptions in this section. See response to comment 8.

As noted in response to comment 10, a de facto acreage allocation system and requirements that may dictate postponement on the day of a burn are features of the current regulation. The proposed amendments to Regulation 5 do not change existing requirements in a way that would have any significant impact. This subject is fully explored in the revised Negative Declaration circulated for the Regulation 5 amendments.

- 25. The District's fee proposal for prescribed burning that would benefit wildlife will likely exclude DFG and other landowners from conducting burns. DFG has a very limited budget for managing its properties in the region. We are also opposed to the proposal to provide a discounted fee rate if prescribed burning is conducted in the spring. Spring burning can pose a significant threat to native plants and animals, especially in forest and brush lands. (DFG)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 26. In Subsection 5-401.13, we are concerned about the proposed timing limitations placed on wildlife management burns in the spring and fall, and the proposal to restrict daily burn acreage. We also recommend that the District remove the upper limit of acreage to be burned. (DFG)**

All of the acreage and timing limitations in the subsection are existing requirements that apply to marsh burning and not to prescribed burning for wildlife management purposes. To clarify the regulation, we have changed the name for this marsh burning (in subsection 5-401.13) from "Wildlife Management" fires to "Marsh Management" fires, as suggested by DFG staff.

- 27. In Subsection 5-401.13, we question how the APCO determines the necessity of each marsh burn and the qualifications of the APCO to make such a determination. We also believe that DFG should be able to make a much more educated assessment of the necessity of each burn. (SRCD)**

This comment was made on an earlier District proposal that could have been interpreted to require a separate determination of necessity by the APCO. Though that was not the intent of the earlier language, the subsection has been revised to make it clear that the necessity determination remains with DFG. We agree that DFG staff are the most qualified authority to assess the

need for each marsh burn. The revised language requires burners to provide DFG with specific information so that the DFG can verify the necessity of a burn (see Section 5-410). The revised language also states that the burner must submit the DFG necessity determination to the APCO as required by existing state law (Health and Safety Code section 41861).

- 28. The proposed amendments in Subsection 410.1 would require any person seeking to conduct a marsh burn to submit a smoke management plan to the APCO for review. The proposed smoke management plan requires information that landowners would be unable to obtain. We recommend drafting a standardized smoke management plan form that will make it easier for landowners to complete and one that meets the needs of DFG, BAAQMD, and the local fire departments. (SRCD)**

While we recognize that the landowners may have to spend some time initially to obtain required information, the information is readily available. For example, the legal description of a property should be readily available from the Solano County Assessor's office or from a property deed. Burn acreage estimates also should cause no problem. The landowners have provided this information to Solano County sheriff's dispatch for years in order to get an acreage burning allocation, and we haven't had problems with those estimates in the past. The proposal is for an estimate of the acreage to be burned, and staff trust that the landowners' estimates will be reasonably accurate. What this also means is that property owners, including DFG, will continue to be responsible for determining their own burn acreage.

As suggested, we have now developed a standardized smoke management plan in consultation with SRCD.

- 29. Regulation 3 proposes fees for (marsh) burning based on the amount of acreage to be burned. These fees must be paid before burning is to occur. But those who submit a smoke management plan are paying their fees in order to be able to burn. They in essence, are paying for a service [the ability to burn] not the program itself. If the proposed burner has paid a fee and is unable to burn (e.g., for environmental reasons, no burn allocation) he has paid for a service that has not been rendered, thereby in essence giving a donation to the BAAQMD. In all fairness, a small fee should be paid for processing and review of the smoke management plan with the balance to be paid following the burn.**

Also, the payment of fees should be expanded to include not just areas 50 acres and below, but also areas below 20 acres. We also propose

that those who burn 20 acres or less pay a smaller fee than those who burn between 21 and 50 acres. (SRCD)

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

Comments on Draft for November Hearing

Comments 30 through 36 were on the draft prepared for the November Hearing. Comments were received from the City of Antioch (Antioch) and from the Sonoma-Lake-Napa Ranger Unit of the California Department of Forestry & Fire Protection (CDF-SNLRU).

- 30. We suggest a modification to proposed subsections 5-111.3 and 5-111.4, which gives District inspection staff the authority to require a person to attempt to cease burning once the inspector receives three or more confirmed complaints. We believe these subsections could be modified so that a single complaint from a mayor, city manager, city attorney, police or fire chief or similar county official would have the same effect of triggering a stop to burning. (Antioch)**

This language has been deleted from the current proposal as it restates existing District enforcement policy on public nuisances regulated under California Health and Safety Code section 41700. While District staff recognize that other public officials may be called upon to respond to public complaints about open burning, the District proposal was based upon requirements Health and Safety Code section 41700. That section requires the District to find that a particular activity has caused “injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public” for it to take action. We believe that the proposed modification, which would require District action based on a single complaint, raises significant legal issues and practical concerns about fairness and enforceability. Where other public officials receive complaints, they can refer them to the District for investigation and potential enforcement action.

- 31. Regarding Regulation 5, one of our most serious concerns has to do with the conditional exemption that no additional fuel “be burned by any existing fire” two hours before sunset. This is not only unrealistic, especially during the winter prescribed burning season, but it also compromises the health and safety of fire personnel in the remote and inaccessible areas where we do much of this type of burning. (CDF-SLNRU)**

Proposed language has been added to Section 5-111 to clarify that the conditions, requirements, or parameters in a written smoke management

plan approved by the APCO may supersede any of the conditional exemptions, including the conditional exemption in Subsection 5-111.2 (see responses to comments 8 and 9). The existing afternoon burn hour limit was never intended to apply and has never been applied to prescribed burning activities.

- 32. Regarding Regulation 3, we question the logic and appropriateness of fees that, according to your staff report, are “intended to recover ... \$126,000/year cost to develop, implement and administer the District’s new smoke management program for prescribed burning.” The imposition of such fees will have the direct effect of killing prescribed burning projects planned for Napa, Sonoma, and Solano counties. (CDF-SLNRU)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 33. The CEQA document fails to consider unintended negative impacts that will result from the imposition of prescribed burn fees. These effects would come from reductions in prescribed burning and include increased smoke from uncontrolled wildfires and reductions in the biological resource benefits of prescribed burning. (CDF-SLNRU)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal. The CEQA Initial Study has been revised to address potential impacts from amendments to Regulation 5 only. The Initial Study concludes that there would be no impacts from revisions to Regulation 5 and a Negative Declaration is proposed for adoption.

- 34. If the fee increases are exempt from CEQA, why lead us through an environmental analysis and negative declaration?**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 35. Requiring prescribed burn fees for fires intended to create a firebreak pursuant to Section 4291 of the California Public Resources Code will restrict the use of these fires, resulting in increasing wildlife hazards. (CDF-SLNRU)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 36. Statements in the CEQA document that the amount and types of open burning will remain unchanged and will therefore not produce hydrology impacts, land use and planning impacts, public service impacts, and utility impacts are contradicted by agency comments [that suggest that prescribed burning will be reduced in response to fees]. (CDF-SLNRU)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal. The CEQA Initial Study has been revised to address potential impacts from amendments to Regulation 5 only. The Initial Study concludes that there would be no impacts from revisions to Regulation 5 and a Negative Declaration is proposed for adoption.

Comments on Draft for December Hearing

After the November Hearing, the District proposal was modified for the December hearing by dropping the proposal to adopt fees. Prior to dropping the fee proposal, however, the CEQA negative declaration, which addressed the earlier proposal that also included fees was recirculated to state agencies. Comments on the recirculated negative declaration were received from the US Fish and Wildlife Service (FWS) and from the California Department of Forestry & Fire Protection (CDF).

- 37. We believe that the proposed amendments will increase fees and may curtail or eliminate prescribed burning, which could have a significant effect the recovery of listed [endangered] species. (FWS)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal.

- 38. We reiterate the concerns of the California Department of Fish and Game regarding fees, timing, and acreage limitations. (FWS)**

This comment was made on an earlier District proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal. The timing and acreage limitations apply to marsh burning and are existing requirements. These limitations do not apply to prescribed burning for wildlife habitat management as conducted by DFG (see responses to comments 25 and 26.

- 39. It is unclear how burns for the enhancement of listed species habitat within the chaparral/scrub community would be addressed. Section 401.13, Wildlife Management, addresses improvement of lowland and marsh habitats only. (FWS)**

Chapparral/scrub burns for habitat improvement have been and will continue to be treated as prescribed burning subject to Subsection 5-401.15 (Wildland Vegetation Management). To clarify the regulation, we have changed the name for marsh burning (in subsection 5-401.13) from "Wildlife Management" fires to "Marsh Management" fires, as suggested by DFG staff.

- 40. We reiterate the concerns expressed by the Sonoma-Lake-Napa Ranger Unit of CDF in earlier comments. The regulation and fees will have significant environmental impacts not addressed in the BAAQMD negative declaration. (CDF).**

This comment was made on the earlier District negative declaration for the proposal that would have imposed fees for prescribed burning and marsh burning. Fees have been dropped from the current proposal. The CEQA Initial Study has been revised to address potential impacts from amendments to Regulation 5 only. The Initial Study concludes that there would be no impacts from revisions to Regulation 5 and a Negative Declaration is proposed for adoption.

Comments on Draft for March Hearing

After the December hearing, several minor changes were made to Regulation 5 and the CEQA document was revised to reflect the dropping of fees. The CEQA document was recirculated and one comment was received from the San Francisco Public Utilities Commission (SFPUC).

- 41. The proposed amendment to Subsection 5-111.3, which would require an attempt to cease burning upon notification of three confirmed complaints, has the potential to halt prescribed burning on SFPUC watershed land. Our fire management program is designed to protect human health and property and to benefit native plant communities. It seems very unwise and poor public policy to rely on a subjective criterion (aesthetics) from a small number of people to halt meaningful fire hazard management and habitat enhancement work. We also feel that it could be fairly argued that the proposal could have substantial adverse environmental impacts. (SFPUC)**

This comment was based on an earlier draft of the Regulation 5 amendments. The language that is the subject of the SFPUC comment has been dropped from the current proposal.

CONCLUSIONS

The proposed amendments are designed to improve the management of smoke from prescribed burning and marsh management burning and to address current open burning

issues. These revisions are also critical for the successful implementation the District new smoke management program for prescribed burning, which is necessary for the District to be consistent with requirements of the new State Guidelines.

The proposed amendments are also intended to minimize or eliminate the potential smoke impacts from open burning on populated areas. These changes should also decrease the number of smoke-related public complaints and violations, help prevent visibility degradation, and alleviate public health concerns.

Adoption of this proposal will also improve the enforceability and clarity of the regulation and reduce variance costs associated with two existing types of fires.

Pursuant to Section 40727 of the California Health and Safety Code, regulatory amendments must meet findings of necessity, authority, clarity, consistency, non-duplication, and reference. The proposed amendments are:

- Necessary to limit smoke and particulate emissions from open burning, and to ensure compliance with ARB and EPA burn requirements;
- Authorized by Sections 39002, 40000, 40001, 40702, 40725 - 40728, 41864, 41800 – 41815, 41512.5 and 42311.2 of the California Health and Safety Code and 17 CCR 80100 et seq.;
- Written or displayed so that meaning of the amendments can be easily understood by the persons directly affected by them;
- Consistent with other District rules, and not in conflict with state or federal law;
- Non-duplicative of other statutes, rules, or regulations; and
- Are implementing, interpreting, or making specific the provisions of California Health and Safety Code Sections 39002, 40000, 40001, 40702, 41864, 41800 – 41815, 41512.5 and 42311.2, and 17 CCR 80100 et seq.

District staff recommend adoption of the proposed amendments to Regulation 5.